



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,649	11/24/2003	Christian Weis	2001P80072WOUS	1173

28204 7590 04/05/2006
SIEMENS SCHWEIZ
I-44, INTELLECTUAL PROPERTY
ALBISRIEDERSTRASSE 245
ZURICH, CH-8047
SWITZERLAND

EXAMINER

HANSEN, COLBY M

ART UNIT	PAPER NUMBER
----------	--------------

3682

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/718,649	Applicant(s) WEIS, CHRISTIAN	
	Examiner Colby Hansen	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8,9 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8,9 and 15-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 23 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant's negative recitation of the intermediate member preventing the gear ring and hub from making direct contact must have basis in the original disclosure, mere absence of a positive recitation is not basis for an exclusion. Therefor any claim containing a negative limitation which does not have basis in the original disclosure is properly rejected under 35 USC 112, 1st paragraph as failing to comply with the written description requirement. MPEP 2173.05(i).

Claims 8, 9, 15-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With regard to claim 21, the original specification has no clear antecedent basis for necessitating that the "the gear ring and hub are directly joined together by said elastic intermediate element".

With regard to claims 23 & 24, said claims limitations concerning the position of the hub, gear ring and intermediate member as well as the intermediate member being arranged to decouple have no clear antecedent basis within the original specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Baier (US Pat. 3,406,583).

Baier (US Pat. 3,406,583) discloses in figures 2-3, an electronically driven device (the “locking” device is an intended use recitation, therefor the actuator of Baier must only be capable of performing said function) for electronically engaging and disengaging an element of a motor vehicle, the device including actuating means having a motor (col. 2/line 21) and a worm gear 18, said motor arranged to drive said worm gear and generate kinetic energy resulting in application of a peak torque to said device, said device comprising a gear wheel comprising a gearing ring 20, a hub 26,30 and an elastic intermediate element 22, said gear wheel, gear ring 20 and hub 26,30 being directly and decouplingly joined together by said elastic intermediate element 26 and said gear wheel and hub 26,30 being further joined together via a material to material bond (frictional adhesion), said gear ring 20 and hub 26,30 each comprising circumferential teeth, said gear ring 20 teeth being arranged to engage said worm gear 18 such

that force from said worm gear is imparted upon said gear ring 20, and a control disk 32 comprising circumferential gear arranged to interact with said hub gear such that rotation force may be exchanged between said control disk 32 and hub 26,30, said control disk mechanically linked to said element such that said peak torque is absorbed by said intermediate element 22.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 9, 15-19, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franz (US Pat. 6,445,081) in view of Baier (US Pat. 3,406,583)

Franz (US Pat. 6,445,081) discloses in figures 1 and 2, an apparatus comprising, an actuating device (fig. 1) having a motor 1 and a worm gear 3; a control disc 4 having a plurality of tracks 6,7 located on opposite side of the control disc 4; two arms (fig. 1 engaging 6,7), having extensions 11 extending into said plurality of tracks 6, 7 effecting a locking and releasing of a movable element 10,12(distal ends of said levers located away from ends thereof having the extensions).

Franz (US Pat. 6,445,081) does not disclose a wheel comprising a gear ring, a hub, and an elastic intermediate member located between said actuating device and said control disc.

Baier (US Pat. 3,406,583) teaches in figures 2-3, an electronically driven device for electronically engaging and disengaging an element of a motor vehicle, the device including actuating means having a motor (col. 2/line 21) and a worm gear 18, said motor arranged to drive said worm gear and generate kinetic energy resulting in application of a peak torque to said device, said device comprising a gear wheel comprising a gearing ring 20, a hub 26,30 and an elastic intermediate element 22, said gear wheel, gear ring 20 and hub 26,30 being directly and decouplingly joined together by said elastic intermediate element 26 and said gear wheel and hub 26,30 being further joined together via a material to material bond (frictional adhesion), said gear ring 20 and hub 26,30 each comprising circumferential teeth, said gear ring 20 teeth being arranged to engage said worm gear 18 such that force from said worm gear is imparted upon said gear ring 20, and a control disk 32 comprising circumferential gear arranged to interact with said hub gear such that rotation force may be exchanged between said control disk 32 and hub 26,30, said control disk mechanically linked to said element such that said peak torque is absorbed by said intermediate element 22, for the purpose of driving a vehicle element while preventing motor damage or damage to the drive mechanisms of the arrangement, as suggested by Baier in col. 2/lines 25-32.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Franz in view of the teachings of Becker et al. to provide a wheel comprising a gear ring, a hub, and an elastic intermediate member arrangement located between an actuating device and a control disk, so as to prevent motor damage or damage to the drive mechanisms of the mechanical arrangement, as suggested by Baier in col. 2/lines 25-32.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz in view of Baier as applied to claims 8, 9, 15-19, and 21-24, above and further in view of Ginsberg. The reference combination set forth above discloses the basis apparatus but does not disclose first and second stop member.

However, Ginsberg teaches in figure 1 an apparatus comprising, inter alia, a control disc 40 having a first stop member 43 which engages a second stop member 38a, 38b so as to halt the movement of said control disc.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Franz (US Pat. 6,445,081) in view of the teachings of Ginsberg to provide first and second stop members so as to limit the amount of rotation and provide halt positions of said control disc so as to provide rest positions when said levers are actuated to desired positions; avoiding the continued locking and releasing with uninterrupted drive from said actuating device (col. 3/lines 20-35) as well as to provide an economically viable worm gear stop assembly that produces a high standard of quality, performance, precision, and protection, as suggested by Ginsberg (col. 1/lines 49-67).

Response to Arguments

Applicant's arguments filed 1/20/2006 have been fully considered but they are not persuasive.

Applicant argues that the detail of figure 3 is sufficient to originally support the negative limitation that "the intermediate member prevents the gear ring and hub from making direct contact". Examiner disagrees. The figure is, at best, silent to such a limitation, which is not

sufficient disclosure. This is especially true, since applicant appears to be hinging patentability upon said feature. As such the 35 USC 112, 1st paragraph rejection of claim 23 is upheld.

Applicant argues that the disclosure (pg. 6/lines 1-11) is sufficient to support the limitation that “the gear ring and hub are directly joined together by said elastic intermediate layer”. Examiner disagrees. The disclosure merely states that the gear ring and hub are connected through an intermediate layer. The specification is silent to any “direct contact” between the elements which means there could be any number of interceding structures between the ring, hub, and layer. Therefore the “direct contact” limitation is still deemed unsupported by the original specification.

Applicant argues that the disclosure (pg. 2/lines 14-30) is sufficient to support the limitations concerning the intermediate member being arranged to decouple. Examiner disagrees. The referenced portions merely state, “if the actuating drive and movable element are now decoupled, then the excess kinetic energy can be absorbed by means of the decoupling element”. It does not disclose the intermediate elastic element in any way, being capable of performing such a function, nor how.

Applicant argues that Becker does not disclose the gear ring and hub directly joined to the intermediate layer because the hub contact drive claws rather than the layer. Examiner disagrees, as the drive claws are part of the hub and therefor fulfills the limitation.

Applicant argues that Becker does not disclose the intermediate layer allowing for coupling and uncoupling via shear. There is reason to believe, based on the similarity of (material, structure, etc.), that the functional limitation(s) of coupling and decoupling may be

(an) inherent characteristic(s) of Becker. In accordance with *In re Best*, 562 F.2d 1252, 195 USPQ 430, 433 (CCPA 1977).

[w]here the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

This “burden of rebutting [may be of] the PTO’s reasonable assertion of inherency under 35 USC 102, or of prima facie obviousness under 35 USC 103” (195 USPQ at 432).

Accordingly, the burden is placed upon the applicant to prove that the limitation(s) in question is/are not (an) inherent characteristic(s) of the reference disclosure.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is **(571) 273-8300**. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent’s term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group’s hands and will eliminate Post Office processing and delivery time as well as the PTO’s mail room processing and delivery time. For a complete list of correspondence **not** permitted by facsimile transmission, see MEP. 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile

Art Unit: 3682

transmission. Responses requiring a fee which applicant is paying by check **should not be** submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MEP. 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 872-9306) on _____

(Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MEP. 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the

processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colby Hansen whose telephone number is (571) 272-7105. The examiner can normally be reached on Monday through Thursday and every other Friday from 7:30 PM to 5:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley, can be reached on (571) 272-6917. Any inquiry of a general nature

Art Unit: 3682

or relating to the status of this application or proceeding should be directed to the Group
receptionist whose telephone number is (703) 308-2168.

Colby M. Hansen

Patent Examiner

A handwritten signature in black ink, appearing to be 'CH' followed by a stylized flourish.

4/3/06

A handwritten signature in black ink, appearing to be 'R. Ridley'.

RICHARD RIDLEY
SUPERVISORY PATENT EXAMINER